

## PROSPERITY SURE TO FOLLOW WAR

Studebaker European Manager  
Tells His View of the  
Situation.

### AMERICAN GOODS GAINING

That a wave of prosperity, both in Europe and in America, is bound to follow the recent European war is the belief of George E. Willis, who for the past two and a half years has been in charge of Studebaker automobile distribution on the European continent.

If the war is concluded within eighteen months and general governmental conditions in each country are not materially altered, I feel positive that France, Germany, Russia and England will all experience a revival such as occurred following the Franco-Prussian war and lasted until two years ago, says Willis.

"The wealth and prosperity of Europe—particularly Germany, France and Russia—rests in their people and not in their natural resources. Those people are the rich. They strive long with great perseverance and patience and achieve what they want or need, and as soon as they are prosperous they begin to recoup their lost fortunes with a goal and a dogged perseverance backed by science and intelligence, that will cause history to repeat itself.

"While there has been, and still will be, enormous loss of life, the male population will be sufficient to till the soil and take care of the regular channels of industry and trade.

"The loss among laboring men is one of the factors, however, which will bring prosperity to America. The war has completely exhausted the supply of horses, wagons and many kinds of manufactured articles. Upon resumption of peace there will be an immediate demand for needed material to assist in rebuilding the commerce and industry of Europe. The scarcity of labor will cause high prices in all classes of manufactured goods—so high in fact that I do not believe Europe can compete with America in such commodities as motor cars, wagons, farm machinery and steel products for many years to come, even if any of them maintain a high price. America, with her scientific production methods, her enormous factories, and the advantage gained by having a large market during the period of stagnation in Europe, will be called upon to supply much of the materials needed by Europe in the reconstruction which is bound to follow the present war.

"Before the war, the demand for American automobiles in Europe was rapidly increasing. European manufacturers have

## One Ford Car Every 49 Seconds

THE "car a minute" production of the Ford factory, the source of much curiosity and general discussion, is not quite an accurate statement. It is a Ford every 49 seconds, to be exact. That means that a Ford is assembled—put together completely—every 49 seconds.

### HOW THE FEDERAL GROWS.

Truck Company Building 1,500 Machines, Says Pulcher.

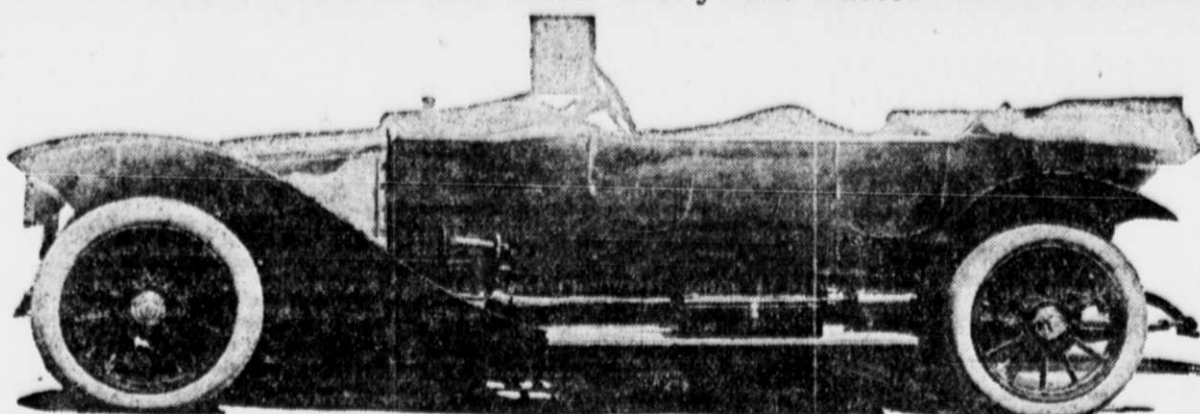
From an output of fifty trucks five years ago to a production of 1,500 for 1915 is the story of the progress of the Federal Motor Truck Company of Detroit. "We started five years ago with two principal things in mind," says Martin L. Pulcher, general manager. "One was to choose the truck capacity that fitted the needs of the most people and the other was to build the truck of standard parts.

"These ideas, ideals if you wish to call them such, we have held to closely. The result is that to-day we are the largest manufacturers of ton and a half trucks in the country. We were the first to build a truck of standard parts and we never have had cause to regret it.

"That the one and a half ton truck is the capacity that fills the greatest need today is evident from the large number of businesses that have become Federalized—grocers, painting contractors, brewers, bakers, manufacturers—in fact almost every industry has found the truck of this size just the equipment it needed.

"So much for the past. With motor trucks at a point where they give the most economical service of any delivery system for any business and with our country's supply of horses rapidly being swallowed up by the war abroad, industry is to be motorized to a greater extent than ever. The country is buying trucks, there is no question about that, and it will continue to buy them in greater quantities than ever. That is the best indication of prosperity I know. A motor truck is a business investment and no man is going to make it unless he can see the business ahead."

## Here Is the "Skiff" Body, the Latest



This is what is called a "Skiff" body, an adaptation of the "Boat" or "Torpedo" body on the "last minute" cars here. This body, by Laboratoire, is on a 50 horse-power, 6 cylinder Renault chassis.

## COLE BRINGS OUT AN EIGHT CYLINDER

Latest Model Is Being Shown  
for the First Time at  
Chicago.

### IS IN "TRIPLE ALLIANCE"

The latest model of the Cole Motor Car Company, which is designed to complete the Triple Alliance of standardized motor cars, is the eight cylinder, which is being shown for the first time at the Chicago Automobile show. An eight cylinder Cole is expected soon here at the salesrooms of the Colt-Stratton Company, Eastern distributors for the Cole car. The lineup of Cole models is called the Triple Alliance, because there is a standard four and a six, in addition to the new eight cylinder.

The newcomer is priced away under \$2,000. It sells at \$1,785, at which figures may be had a seven passenger touring car with disappearing auxiliary seats, as well as a three passenger roadster with seats abreast. The car is electrically lighted and started by the latest Delco apparatus, the remainder of the equipment being a one man top, Stewart speedometer, power tire pump, inspection lamp, demountable rims with a spare rim, windshield, jack, tools, etc. The motor of the new eight cylinder is naturally the interesting feature of the car. This is a Northway made engine with cylinders 3 1/2 by 4 1/2, set in V fashion. It differs from other eights in that the

### VANADIUM STEEL'S QUALITY.

It Plays Important Part in Making of Mitchell Models, Says Hought.

"The average test of plain carbon steel is 50,000 pounds, of chrome nickel steel 110,000 and of vanadium steel 125,000 pounds to the square inch." In quoting these figures Harry S. Hought, the Mitchell distributor, wishes to draw attention to the fact that vanadium steel will resist a weight or strain of 125,000 pounds to the square inch before it will part, whereas chrome nickel steel will part at 110,000 pounds and plain carbon steel at 50,000. Vanadium steel is a light metal and plays an important part in the 1915 Mitchell light four and sixes. Its liberal use is an important factor in the accomplishment of light weight without endangering the safety of the cars.

The front axle spindles and the steering arm are made of vanadium steel, the size of the parts being reduced. The transmission gears and the axle and the drive shafts, through which the strain of the driving force is transmitted, are likewise made of this metal.

Careful attention to the material that goes into the Mitchell enabled one of the 1915 light four stock models only a short time ago to run 7,500 miles in thirty days with the engine sealed 250 miles a day through twenty-three different states over every kind of road.

Further there are more automobiles in existence now than there were a year ago. New and used cars, there are altogether about 1,500,000 automobiles in the country's car census. This means a production of 7,500,000 automobile tires for the usual need. It is safe to say that the supply will be the better part of three-quarters of a million tires short of what is actually needed.

Last season was a 5,000,000 tire season. There is a gain of about half again as

## 1915 DEMAND WILL BE 7,500,000 TIRES

And This Will Mean a Shortage  
in the Supply, Says  
De Lissner.

### EMBARGO ONE BIG FACTOR

By HORACE DE LISSNER.

Ajax-Greif Rubber Company.

Conditions all point to a shortage in automobile tires for the coming season. There are at least two reasons for this. One is that pending the settlement of the question of raising the embargo on rubber manufacturers of tires in general were not active in business. They made about what tires were needed and did not build much for stock. Perhaps two months of this sort of thing were experienced by tire makers generally. There fore with the opening of the spring season there will not be the stocks of tires that usually are stored up.

Furthermore there are more automobiles in existence now than there were a year ago. New and used cars, there are altogether about 1,500,000 automobiles in the country's car census. This means a production of 7,500,000 automobile tires for the usual need. It is safe to say that the supply will be the better part of three-quarters of a million tires short of what is actually needed.

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## CUP RACES ON COAST HAVE SIXTEEN ENTRIES

Both Vanderbilt and Grand  
Prize Affairs to Be Run in  
February Drawing Well.

To date no less than sixteen cars are nominated for the Vanderbilt Cup race, which will be run on Washington's Birthday, and a like number of entrants are to participate in the Grand Prize contest, which is to be run on February 27, both on the Pacific coast.

L. L. Huggins, chairman of the racing committee, received last week the entries of two Chevrolet models. One of the cars is to be driven by Jack La Cain, who has made quite a reputation with the Chevrolet in various speed contests held in the East last year. It has already been announced that Barney Oldfield, Ralph De Palma, Earl Cooper, Ray Harroun, Gil Anderson, Eddie Pullen, Will Carlson and a number of other racing stars are to be seen in competition for the big prizes in the two classes of motordom. John B. Marquis is planning to enter his Bugatti racer in both events and a number of private owners of speed cars are now negotiating with Chairman Huggins with a view to entering their machines.

The Vanderbilt Cup event is for the trophy donated by William K. Vanderbilt, Jr., as well as \$5,000 in gold for the first five drivers to finish. The Grand Prize trophy is a gold challenge cup valued at \$5,000 and is donated by the Automobile Club of America. In addition to the gold cup a cash prize of \$8,000 is offered to the first five drivers to place in the Grand Prize event.

### FAVORS BATTERY IGNITION.

Coupled With Built-In Generator,  
Says Studebaker Engineer.

Not all manufacturers of automobiles in and around the \$1,000 class are inclined to favor the magneto as a source of ignition, to judge from the statement of H. M. Joy, the electrical engineer of the Studebaker Corporation. "When we introduced the first electrical system into our cars we realized that the generator was, in effect, a magneto, but infinitely more versatile and of greater capacity as a source of current," says Mr. Joy. "We felt that the magneto added both weight and complexity and used up a very considerable amount of horse-power in operation. But we were determined not to act rashly."

"One year's experience convinced us that the generator-storage battery system was thoroughly equal to any added tack we might impose on it. We adopted it as a built-in unit, added a distributor and discarded the magneto for all time.

"Our confidence in our electrical system was amply made good. The storage battery and generator have given a hotter spark. Cold weather starting is immensely facilitated, the starting spark coming direct from the powerful storage battery. At speed the generator furnishes a spark as perfectly timed as the magneto ever did. Our service department informs me that from the thousands and thousands of Studebaker cars in the hands of owners, there has not been a single source of complaint regarding storage battery generator ignition."

## CHANDLER CAR PRICE IS REDUCED TO \$1,295

Move Made by Cleveland Concern of Interest to Motorists Generally.

A reduction in price to \$1,295 is announced by the makers of the Chandler Six, which is handled locally by the Hedy Murray Motors Corporation of 1830 Broadway. The model is the same which last season established a record of sales for the Chandler Motor Car Company of Cleveland at \$1,595. Chandler officials say there will be absolutely no change in the present car, except in the continued improvement of equipment, etc., whenever possible. Bosch magneto, Gray & Davis electric starting motor, Gray & Davis electric generator, enclosed silent chains for driving motor shafts, Bosch spark plugs, Mayo radiator of the Mercedes type, hand buffed real leather upholstery, chrome man top, fifty curtains, gasoline tank in rear, demountable rims, electric motor horn and speedometer are included in the regular equipment.

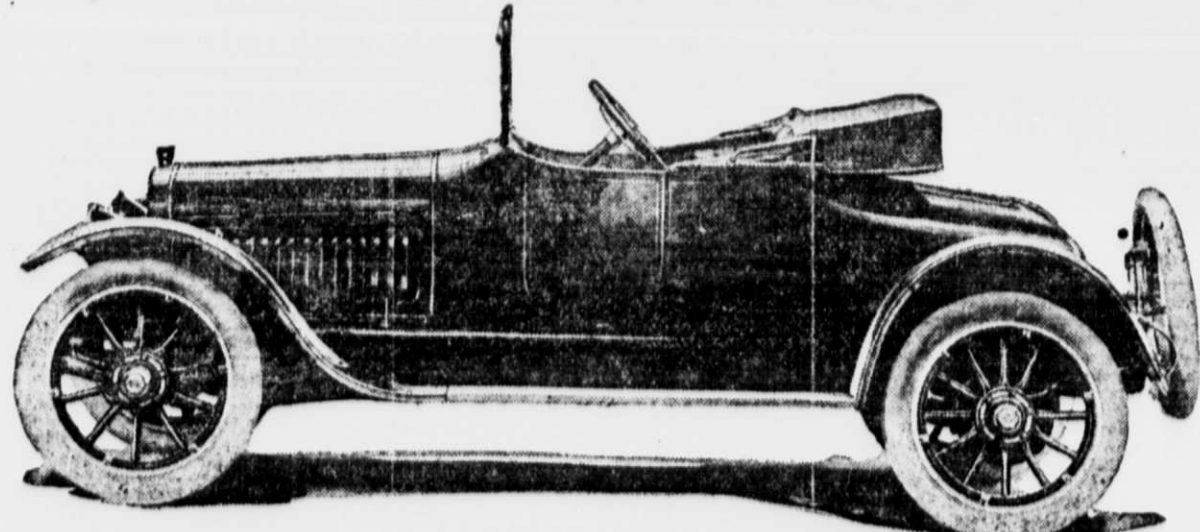
In making public the new price of the Chandler Six, officers of the company announce that it will be carried throughout the coming season without change. Orders for cars now on the books of the company for 1915 delivery had already promised a record year.

The Chandler announcement is of interest to the public because of the pioneer position occupied by that company in the building of lightweight six cylinder cars. When first placed on the market two years ago the six cylinder car was almost exclusively confined to the high priced field and was considered something of a fad. Convinced through their eight years experience in the construction and sale of sixes that a lightweight car of this type selling at a moderate price would find a ready market, the present officers of the Chandler Company brought out the Chandler Six, weighing less than 2,000 pounds and at that time selling for \$1,735.

The car made good to such an extent that the following season brought a reduction to \$1,595. To-day the company is one of the three largest six cylinder makers in the business.

Harvard Nine to Visit Shore Resort.

CAMBRIDGE, Mass., Jan. 23.—A change in the annual southern trip of the Harvard baseball team, by which the team will go to Atlantic City for three days after the game with West Point, was announced by Manager Cunningham today. It has been customary to go direct either to Baltimore or Washington. The team probably will play a local nine during its stay at Atlantic City.



This is the runabout model of the new Chandler, which is offered to the buying public for the new season at a markedly reduced price.

## Says Motorist Is Long-Suffering

THE average American motorist is a pretty patient and long-suffering individual. He pays from \$5 to \$50 a year for the privilege of having saved from \$400 to \$5,000 to purchase an automobile, a vehicle that is now looked upon almost as a necessity in the pursuit of business as well as pleasure.

What is the purpose of this tax? Ostensibly it is for road construction and maintenance, but as yet the motorist is by no means the only user of our State highways.

Light, horse drawn buggies, as well as heavy trucks, are still used, and why their owners should profit by the use of excellent highways at the expense of the motorist and should not be called upon to expend one penny for a vehicle tax is a question that no fair minded man can answer.—Ohio Motorist.

### MOTOR BUSINESS HOLDS UP.

Sales of Cars Continue in Good Measure, Silver Reports.

If business men in other lines outside of the automobile still retain any fear that there is a period of considerable depression ahead it would be wise for them to take a day off and visit a few of the big establishments on Broadway where motor cars are sold. The way in which the sale of motor cars has stood up since the world war began is nothing short of marvelous, and it is a matter of fact that in some quarters sales actually took on a spurt upon the opening of hostilities.

Commenting on this stability in the automobile business C. T. Silver, president of the distributing company which handles the Peerless and Overland lines here, says that people purchasing a luxury such as the automobile must have a pretty good and clear idea of what the future holds in store for them. In times of stress the minds of those even of a reckless disposition turn toward economical lines; yet there has not been much of this disposition displayed in the purchase of motor cars.

Since the show closed, Silver says, he has had hardly enough men to wait on the people who come to his showroom and his staff is probably the largest in New York city. Summed up it looks as if those who are buying automobiles don't give a rap about any changes the future has in store. They figure that if there are any they must be for the better.

## BLACK ON YELLOW IS BEST AUTO TAG

Combination Is Most Legible,  
With White on Green Next.  
Says Hugo.

### WHAT VARIOUS STATES USE

By FRANCIS M. HUGO,  
Secretary of State.

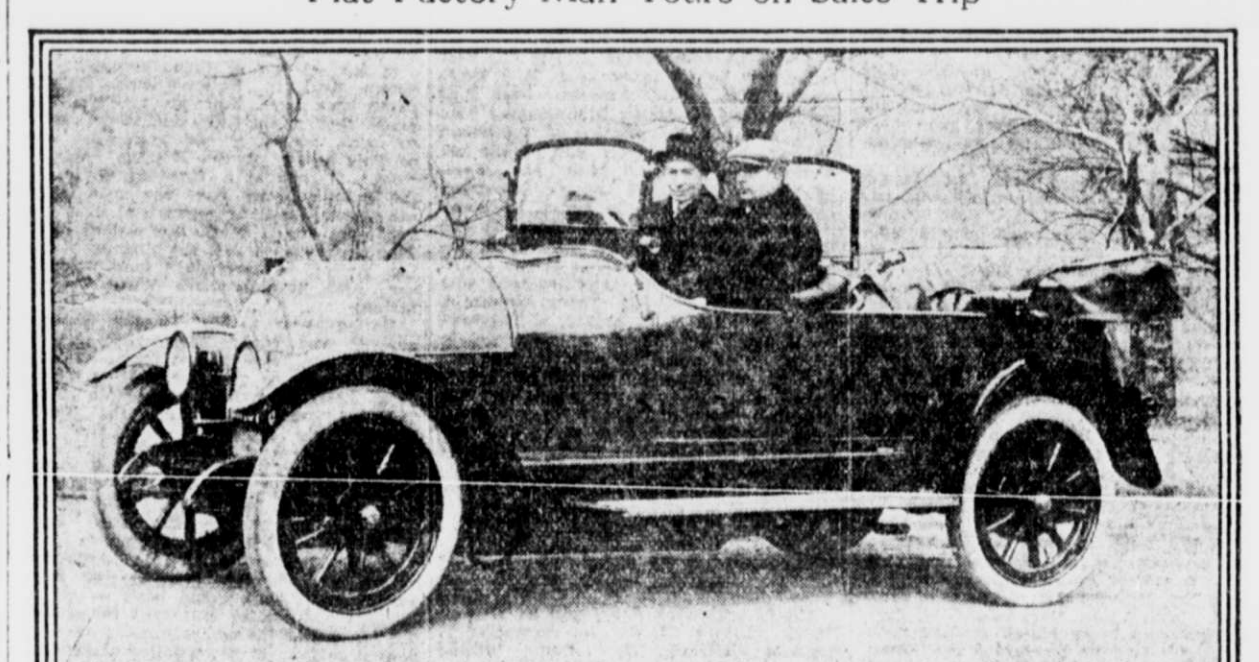
The problem of legibility of number plates which are being issued during the present month to motor car owners in nearly all of the States is one that has periodically agitated the license officials for some time past. Recently experiments were conducted to determine the most conspicuous color combination for both plate and number, which the laws in most Commonwealths require to be distinctly different each year and of marked contrast at all times.

The results of these tests have demonstrated that the most legible color scheme to be adopted on number plates is black upon a yellow background, with white upon green as next choice. For the current year the former has been selected in New York and Oregon, Connecticut preferring yellow numerals upon a black background, but reversing this for commercial cars. Similar combinations were adopted in Iowa, where number plates have been issued bearing black figures upon a yellow surface.

The license officials in three States have chosen the latter combination, New Hampshire adopting green figures on pink, while Indiana selecting green on pink, while New Jersey has blended white figures on a dark green background. In North Dakota black numbers appear on turquoise green. Ohio and Rhode Island have decided upon white background with black letters and figures, Wisconsin and Wyoming selecting the reverse—white on black background.

Blue still remains a popular color, being used in four States, Kansas, Michigan, Maryland and Massachusetts, each selecting numerals embossed upon white, the exact opposite being chosen in New Mexico. Mississippi has issued aluminum tags with black embossed figures, while Washington has light colored numbers in a dark background.

## Fiat Factory Man Tours on Sales Trip



The car shown here is the Fiat Light 30, which has proved to be an attractive model. In it are E. H. Parker, driving, and H. T. Clinton, sales manager of the Fiat factory, on a demonstration trip made recently to agencies in the South and West.

## GOODYEAR PRODUCTION IS SHOWING INCREASES

Such Is Report Made by Factory  
Manager Reviewing Situation  
Made by the Embargo.

By F. W. LITCHFIELD,  
Factory Manager, Goodyear Tire and  
Rubber Company.

The rubber embargo by Great Britain, after being in force for nearly two months, has been raised on all concerns who have guaranteed not to reexport rubber to the enemies of Great Britain. The Goodyear Tire and Rubber Company has not been inconvenienced by this embargo. Anticipating possible disturbances owing to the war we endeavored to carry larger stocks than usual and have had more rubber in our factory at Akron during the embargo than we ever had before.

The factory production for the month of November was 20 per cent. greater than last November, and the factory production for December was 33 per cent. greater than last December. During the embargo our rubber has been coming into Canada and stored in Toronto, and we now have more than a thousand tons of crude plantation rubber in storage, which we are making arrangements to have shipped to us at once and which will arrive long before our present supply in Akron is exhausted.

Net, this means that while the embargo held potential dangers for crude rubber consumers and later for our manufacturers and users, those dangers have been avoided. It is not likely that there will now be any advance in tire prices, and crude rubber prices are dropping gradually back in the direction of their level at the beginning of the war. The price of crude had almost doubled during the two months the embargo was on. Goodyear has been watching the situation closely, and the bringing of stocks to Canada means that this will be the first company to receive raw material as a result of the lifting of the embargo.

Cornell and Lehigh Enter Meet.

WASHINGTON, Jan. 23.—According to the local management, Lehigh and Cornell may enter the George Washington meet. Princeton will not, as the Georgetown games are only two weeks after the George Washington meet and Princeton plans to send a large squad to the Hilltoppers' annual athletic carnival. The University of Pennsylvania gives a novel reason for not entering men on February 13, objecting to the fact that such shoes are forbidden at Convention Hall. Prof. McNemar is giving his best to persuade the Pennsylvanians to come down anyway, but has met with no success thus far.

### WORM DRIVE PACKARD TRUCKS.

Entirely New Line of Vehicles Announced by Detroit Builders.

An entirely new line of motor trucks is announced by the Packard Motor Car Company of Detroit. The series, ranging in capacity from one to six tons, inclusive, possesses numerous features, among others the installation of worm drive. The 1-ton Packard is a new addition to this family and marks the entrance of the company into the light duty field.

Each unit is designed especially for the duties required of a truck of that capacity. It has taken three years for the Packard to perfect the worm drive. In the final test, were driven a distance equivalent to five times around the earth. This mileage was established over the roughest road conditions to be encountered between Michigan and the Rocky Mountains.

The design which has been evolved in the new models is expected to remain substantially unchanged for several years. The builders express the confidence of having achieved a truck design to render the maximum service with the minimum cost of upkeep and with minimum attention and effort on the part of both the owner and his employees.

One point in design of the new Packard is their centralized control. The latter feature is entirely new in heavy duty trucks and means complete mastery of the vehicle from the driver's seat. The new models have left drive and left side levers.

The Packard motor is automatically governed to prevent overspeeding by reckless drivers and the resultant abuse of the vehicle. The carburetor is automatically controlled and hot water jacketed, and the ignition system is so protected as to be practically waterproof.

These machines have provision for electrical cranking and lighting apparatus, also a power takeoff for operating independent mechanism.

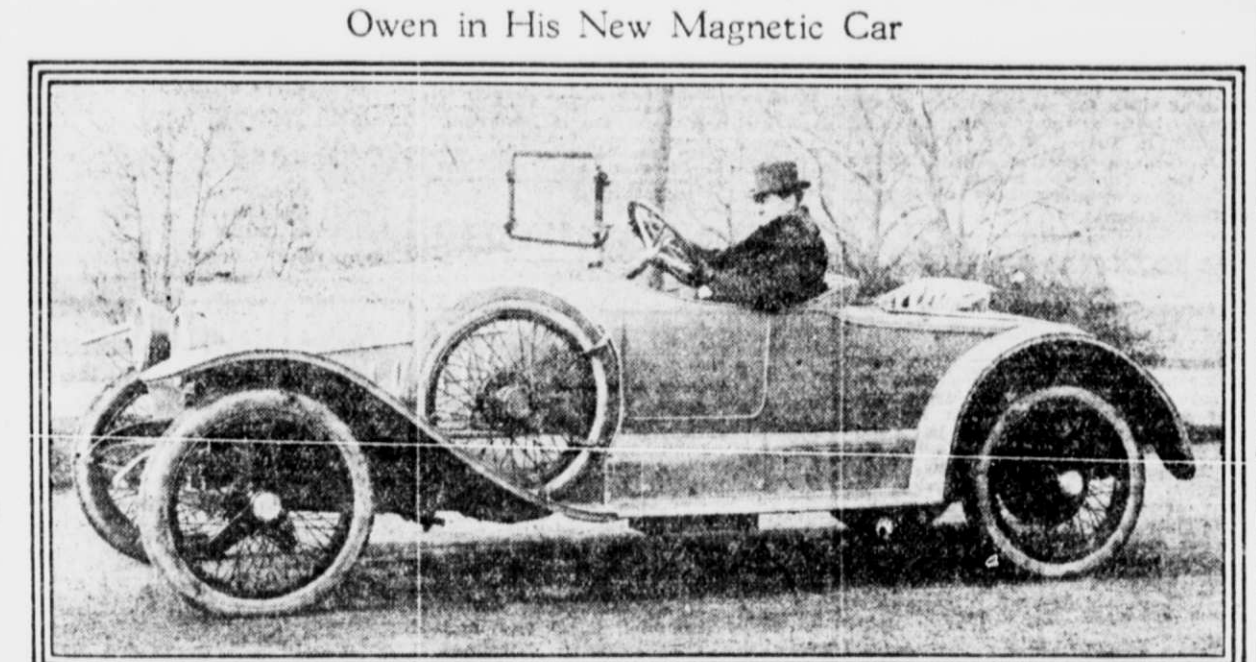
Despite large orders from Europe the Packard truck shops are prepared for early deliveries of the new models.

### NOTES OF THE MOTOR WORLD.

At the next meeting of the Electric Vehicle Association of America on January 28, Edward Callan, a department store proprietor, will be the first speaker of a number of series who are to talk on "Electric Vehicles in Department Store Service," from the standpoint of the user. The meeting to which the public is invited, will be held in the Consolidated Gas Company Building at 130 East Fifteenth street.

The Goodyear Tire and Rubber Company reports that a trainload of 800 tons of crude rubber arrived yesterday at its factory in Akron. There are also about 500 tons more coming on the Lusitania. These shipments are the earliest reported since the embargo was raised.

F. A. Seibehner, president of the company, who has been abroad, is expected back here soon now that negotiations with the British Government have been completed.



A most interesting modern development in motor car making is the Owen Magnetic car, which has a complete electric transmission and braking system. The photograph shows Ray Owen, builder of the car, in his three passenger roadster.

never been able to compete with America in price—and this price difference will be even greater after the war than before, because of the scarcity of labor. The prejudice against American goods is fast disappearing through their own experience and observations—that our cars are not only from 25 per cent. to 50 per cent. cheaper than European makes, but in many details of design, construction and equipment are more practical and really stand up better in hard service than European makes.

"Studebaker has enjoyed a very satisfactory business on the continent during the past two and a half years. During the first seven months of 1914 our sales were greater than those for all of 1913, and had it not been for the war the total 1914 business would have more than doubled 1913.

"While I was in Germany I saw Studebaker cars used by the German Red Cross. There is an interesting story connected with this, which demonstrates the superior quality of American made cars. Just after war was declared, the German Government took over sixty cars from the Berlin Studebaker distributor. Immediately the German motor car manufacturers united in a petition to the Government to pass a law prohibiting the purchasing of any foreign made motor cars for war purposes. In the meantime, these sixty cars went into hard service at the front, and as more cars were needed the officers in charge specified Studebaker cars in their requisitions. The Government at first disregarded these specifications, but the demand became so insistent that the Government took over the entire Studebaker stock of 200 cars, and I have every confidence in the ability of the European nations to recoup rapidly, and in the people themselves—assisted by their Governments—to recoup their fortunes and bring about a long period of steady industrial prosperity. That American made motor cars and American made machinery of all kinds will play an important part in this recoupment cannot be doubted by any one who has visited Europe and who understands conditions there."

### NEW MACK WORM DRIVE.

The International Motor Company has a line of one and two ton Mack worm drive trucks in which the simplicity of motor and chassis assembly is one of the main points. Accessibility to the working parts of the motor through the crank case is unrestricted, so that in case of difficulty the road to the connecting rod and piston of any cylinder can be taken out of the motor complete, the crank case put back in place, and the truck run home on two or three cylinders.

Several years of research and experimental work were carried on before the design was finally adopted. A truck has been produced which, it is claimed, will not lose to concrete and maintain than any other truck of the same size on the market.